January 21, 2003

RE: LAU Industries, Inc 011-14721-00039
TO: Interested Parties / Applicant

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for consideration at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR QUALITY

LAU Industries, Inc.
843 Indianapolis Avenue
Lebanon, Indiana 46052

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 011-14721-00039	
Original signed by Paul Dubenetzky Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: January 21, 2003 Expiration Date: January 21, 2008

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 and A.2 are descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary fan manufacturing source.

Authorized Individual:	Plant Manager
Source Address:	843 Indianapolis Avenue, Lebanon, Indiana 46052
Mailing Address:	P.O. Box 646, Lebanon, Indiana 46052
General Source Phone:	765-482-3650
SIC Code:	3564
County Location:	Boone
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

(a) One (1) paint spray booth, known as Booth 1, equipped with air atomization and HVLP spray applicators, and dry filters for PM overspray control, installed in 1964, reconstructed in 2002, exhausted through stack P/1, capacity: 42 fan parts per hour.

(b) One (1) paint spray booth, known as Booth 2, equipped with air atomization and HVLP spray applicators, and dry filters for PM overspray control, installed in 1974, reconstructed in 2002, exhausted through stack P/2, capacity: 21 fan parts per hour.

(c) One (1) paint spray booth, known as Booth 3, equipped with air atomization and HVLP spray applicators, and dry filters for PM overspray control, installed in 1984, reconstructed in 2002, exhausted through stack P/3, capacity: 4 compressor units per hour.

(d) One (1) laser cutting machine, equipped with a Torit dust collector for particulate control, installed in 2002, exhausted inside the building, capacity: 453 inches of metal per minute.

(e) Two (2) natural gas-fired air make-up units, identified as MUA-1 and MUA-2, installed in May 2002, rated at: 4.00 million British thermal units per hour, each.

(f) Twelve (12) Metal Inert Gas (MIG) welding stations, capacity: 7.00 pounds of wire per hour, each.

(g) Three (3) Stick welding stations, capacity: 1.80 pounds of wire per hour, each.

(h) Three (3) Tungsten Inert Gas (TIG) welding stations, capacity: 2.00 pounds of wire per hour, each.

(i) One (1) plasma flame cutting station, equipped with a torit dust collector for particulate matter (PM) control, exhausted inside the building, capacity: 180 inches of metal per minute.

(j) One (1) radial arm saw, equipped with a fabric dust collector for particulate matter (PM) control, installed in 1964, exhausted inside the building, capacity: 70.6 pounds of wood per hour.

SECTION B GENERAL CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.5 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of operating permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

B.7 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.8 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.9 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.10 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to 326 IAC 2-6.1-6(d)(3):

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.

(b) The written notification shall be sufficient to transfer the permit to the new owner by a notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

(c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

B.11 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.

(b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

(a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.5 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an “authorized individual” as defined by 326 IAC 2-1.1-1.

(e) Procedures for Asbestos Emission Control

The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

Testing Requirements

C.7 Performance Testing [326 IAC 3-6] [326 IAC 2-1.1-11]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date.

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14 days) prior to the actual test date.

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.8 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

Compliance Monitoring Requirements

C.9 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.10 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.11 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 1-6]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.12 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected emissions unit while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

Record Keeping and Reporting Requirements

C.13 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.14 General Record Keeping Requirements [326 IAC 2-6.1-5]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, a record keeping requirements not already legally required shall be implemented when operation begins.

C.15 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) Unless otherwise specified in this permit, any report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by an “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) paint spray booth, known as Booth 1, equipped with air atomization and HVLP spray applicators, and dry filters for PM overspray control, installed in 1964, reconstructed in 2002, exhausted through stack P/1, capacity: 42 fan parts per hour.

(b) One (1) paint spray booth, known as Booth 2, equipped with air atomization and HVLP spray applicators, and dry filters for PM overspray control, installed in 1974, reconstructed in 2002, exhausted through stack P/2, capacity: 21 fan parts per hour.

(c) One (1) paint spray booth, known as Booth 3, equipped with air atomization and HVLP spray applicators, and dry filters for PM overspray control, installed in 1984, reconstructed in 2002, exhausted through stack P/3, capacity: 4 compressor units per hour.

(d) One (1) laser cutting machine, equipped with a Torit dust collector for particulate control, installed in 2002, exhausted inside the building, capacity: 453 inches of metal per minute.

(e) Two (2) natural gas-fired air make-up units, identified as MUA-1 and MUA-2, installed in May 2002, rated at: 4.00 million British thermal units per hour, each.

(f) Twelve (12) Metal Inert Gas (MIG) welding stations, capacity: 7.00 pounds of wire per hour, each.

(g) Three (3) Stick welding stations, capacity: 1.80 pounds of wire per hour, each.

(h) Three (3) Tungsten Inert Gas (TIG) welding stations, capacity: 2.00 pounds of wire per hour, each.

(i) One (1) plasma flame cutting station, equipped with a torit dust collector for particulate matter (PM) control, exhausted inside the building, capacity: 180 inches of metal per minute.

(j) One (1) radial arm saw, equipped with a fabric dust collector for particulate matter (PM) control, installed in 1964, exhausted inside the building, capacity: 70.6 pounds of wood per hour.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.1.1 Volatile Organic Compounds [326 IAC 8-2-9]

(a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the daily volume weighted average volatile organic compound (VOC) content of coating applied to the metal fan parts in Booth 1 and Booth 2 shall be limited to 3.5 pounds of VOCs per gallon of coating less water, as delivered to the applicator for any calendar day, for forced warm air dried coatings.

(b) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.1.2 Volatile Organic Compounds [326 IAC 8-2-9]

The potential to emit of VOC from the one (1) paint spray booth, identified as Booth 3, is less than fifteen (15) pounds per day, therefore, 326 IAC 8-2-9 does not apply. Any change or modification which would increase the potential to emit VOC to fifteen (15) pounds per day or more from this paint spray booth shall obtain prior approval from IDEM, OAQ.

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), and 40 CFR 52 Subpart P, the allowable PM emission rate from the twelve (12) Metal Inert Gas (MIG) welding stations, the three (3) stick welding stations, and the three (3) Tungsten Inert Gas (TIG) welding stations shall not exceed 6.52 pounds of PM per hour at a process weight rate of 4,000 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.4 Particulate Matter (PM) [326 IAC 6-3-2(d)]

The surface coating operation shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.1.5 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for the three (3) paint spray booths, the one (1) coal slag shotblaster, the two (2) plasma flame cutting stations, and the one (1) radial arm saw and their control devices.

Compliance Determination Requirements [326 IAC 2-1.1-11]

D.1.6 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3)(A) using formulation data supplied by the coating manufacturer and the daily volume weighted average of VOC content. This shall be calculated using the following formula, where n is the number of coatings (c):

$$\frac{\sum_{c=1}^{c=n} \text{production rate (units/day)} \times \text{coating (gallons/unit)} \times \text{VOC content (pounds/gallons of coating less water)}}{\sum_{c=1}^{c=n} \text{production rate (units/day)} \times \text{coating (gallons/unit)}}$$

However, IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.7 Paint Spray Booth Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks P/1, P/2, and P/3 while one (1) or more of the booths are in operation. The Compliance Response Plan shall be followed

whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.8 Record Keeping Requirements

(a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC content limit established in Condition D.1.1.

(1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) The total VOC usage for each day; and

(3) The volume weighted VOC content of the coatings used for each day.

(b) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limit established in Condition D.1.2.

(1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) The total VOC usage for each month; and

(3) The weight of VOCs emitted for each compliance period.

(c) To document compliance with Condition D.1.7, the Permittee shall maintain records of the results of the inspections required under Condition and D.1.7.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES ?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. : _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 20_____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 20____ _____ AM / PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____
INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

*** Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____

_____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	**LAU Industries, Inc.**
Address:	**843 Indianapolis Avenue**
City:	**Lebanon, Indiana 46052**
Phone #:	**765-482-3650**
MSOP #:	**011-14721-00039**

I hereby certify that LAU Industries, Inc. is
9 still in operation.
9 no longer in operation.

I hereby certify that LAU Industries, Inc. is
9 in compliance with the requirements of MSOP **011-14721-00039.**
9 not in compliance with the requirements of MSOP **011-14721-00039.**

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a Minor Source Operating Permit

Source Name:	**LAU Industries, Inc.**
Source Location:	**843 Indianapolis Avenue, Lebanon, Indiana 46052**
County:	**Boone**
Operation Permit No.:	**MSOP 011-14721-00039**
SIC Code:	**3564**
Permit Reviewer:	**Craig J. Friederich**

On October 8, 2002, the Office of Air Quality (OAQ) had a notice published in the Lebanon Reporter, Lebanon, Indiana, stating that LAU Industries, Inc. had applied for a permit to operate a fan manufacturing source. The notice also stated that OAQ proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On October 21, 2002, Richard Risotti of LAU Industries, Inc. submitted comments on the proposed operating permit. The summary of the comments and corresponding responses are as follows: The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded.**

Comment 1:

Item A.2(d), the one (1) coal slag shot blaster, known as Clemco Blaster, installed in 1984, exhausted through Stack 5, capacity: 494 pounds per hour is being removed from the facility. We are in the process of installing a laser-cutting machine, equipped with a Torit dust collector for particulate matter (PM) control, exhausted inside the building, capacity: estimated at 453 inches of metal per minute.

Response 1:

The coal slag shot blaster has been removed in Section A.2 and all applicable rules have been deleted in Section D.1 accordingly. The laser-cutting machine has been added to Section A.2. The emission calculations for the laser cutter are provided on page 1 of Appendix B of the TSD Addendum. The process weight rate of the laser-cutting machine is less than one-hundred (100) pounds per hour, therefore, pursuant to 326 IAC 6-3-2, the allowable particulate matter emission rate is 0.551 pounds per hour. The laser cutter is exempt from air pollution permit requirements because the potential to emit particulate matter is less than five (5) tons per year. Please note that Conditions D.1.3 (b) and (d) have been deleted since the allowable particulate emission rate for process weight rates less than 100 pounds per hour is now covered by Condition C.1 (see change 8). The potential to emit has been re-calculated and shown as follows:

Pollutant	Potential To Emit (tons/year)
PM	~~110~~ **22.7**
PM_{10}	~~84.0~~ **22.8**
SO_2	0.021
VOC	9.75
CO	2.94
NO_X	3.50

The changes to the permit are as follows:

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

(a) One (1) paint spray booth, known as Booth 1, equipped with air atomization and HVLP spray applicators, and dry filters for PM overspray control, installed in 1964, reconstructed in 2002, exhausted through stack P/1, capacity: 42 fan parts per hour.

(b) One (1) paint spray booth, known as Booth 2, equipped with air atomization and HVLP spray applicators, and dry filters for PM overspray control, installed in 1974, reconstructed in 2002, exhausted through stack P/2, capacity: 21 fan parts per hour.

(c) One (1) paint spray booth, known as Booth 3, equipped with air atomization and HVLP spray applicators, and dry filters for PM overspray control, installed in 1984, reconstructed in 2002, exhausted through stack P/3, capacity: 4 compressor units per hour.

~~(d) One (1) coal slag shot blaster, known as Clemco Blaster, installed in 1984, exhausted through Stack 5, capacity: 494 pounds per hour.~~

(d) One (1) laser cutting machine, equipped with a Torit dust collector for particulate control, installed in 2002, exhausted inside the building, capacity: 453 inches of metal per minute.

(e) Two (2) natural gas-fired air make-up units, identified as MUA-1 and MUA-2, installed in May 2002, rated at 4.00 million British thermal units per hour, each.

(f) Twelve (12) Metal Inert Gas (MIG) welding stations, capacity: 7.00 pounds of wire per hour, each.

(g) Three (3) Stick welding stations, capacity: 1.80 pounds of wire per hour, each.

(h) Three (3) Tungsten Inert Gas (TIG) welding stations, capacity: 2.00 pounds of wire per hour, each.

(i) One (1) plasma flame cutting station, equipped with a torit dust collector for particulate matter (PM) control, exhausted inside the building, capacity: 180 inches of metal per minute.

(j) One (1) radial arm saw, equipped with a fabric dust collector for particulate matter (PM)

control, installed in 1964, exhausted inside the building, capacity: 70.6 pounds of wood per hour.

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]

~~(a) Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies) and 40 CFR 52 Subpart P, the allowable PM emission rate from the coal slag shot blaster, known as Clemco Blaster, shall not exceed 1.82 pounds per hour when operating at a process weight rate of 595 pounds of metal fan parts per hour.~~

~~The pounds per hour limitation was calculated with the following equation:~~

~~Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:~~

~~$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour~~

~~(b) Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), and 40 CFR 52 Subpart P, the allowable PM emission rate from the radial arm saw shall not exceed 0.551pounds per hour when operating at a process weight rate of less than 100 pounds per hour.~~

~~(c)~~ Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), and 40 CFR 52 Subpart P, the allowable PM emission rate from the twelve (12) Metal Inert Gas (MIG) welding stations, the three (3) stick welding stations, and the three (3) Tungsten Inert Gas (TIG) welding stations shall not exceed 6.52 pounds of PM per hour at a process weight rate of 4,000 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

~~(d) Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), and 40 CFR 52 Subpart P, the allowable PM emission rate from the one (1) plasma flame cutting station shall not exceed 0.551 pounds of PM per hour at a process weight rate of less than 100 pounds per hour.~~

Upon further review, the OAQ has decided to make the following changes to the construction permit: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded)**:

Change 1:

IDEM, OAQ is no longer going to include the phone number of the contact person, because it is cumbersome to do a notice only change every time the source changes the phone number. But a general source phone number has been requested by local agencies and inspectors, so a general number will replace the contact person's phone number. "County Status" has been replaced with "Source Location Status" in order to clarify when only portions of a county are non-attainment:

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary fan manufacturing source.

Authorized Individual:	Plant Manager
Source Address:	843 Indianapolis Avenue, Lebanon, Indiana 46052
Mailing Address:	P.O. Box 646, Lebanon, Indiana 46052
General Source Phone ~~Number~~:	765-482-3650
SIC Code:	3564
County Location:	Boone
~~County~~ **Source Location** Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

Change 2:

Conditions B.2 (Definitions) and B.4 (now B.5) (Modification to Permit) have been revised and Condition B.4 (Permit Term and Renewal) has been added to the permit. These conditions replace existing Conditions B.5 and B.6:

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, ~~any~~ **the** applicable definitions found in **the statutes or regulations** IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.4 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.~~4~~**5** Modification to Permit [326 IAC 2]

~~Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all~~ **All** requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

~~B.5 Minor Source Operating Permit [326 IAC 2-6.1]~~

~~(a) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).~~

~~(b) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in this permit. If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.~~

~~B.6 Permit Term [326 IAC 2-6.1-7]~~

~~This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications or amendments of this permit do not affect the expiration date.~~

Change 3:

Annual Notification has been moved to Section B from Section C:

B.6 ~~C.20~~ Annual Notification [326 IAC 2-6.1-5(a)(5)]

Change 4:

Condition B.7 (Preventive Maintenance Plan) has been moved to Section B from Section C. The language "Preventive Maintenance Plans" has been replaced with "PMPs" throughout the condition, since it has already been defined. In (c) language was added that says the source has a reasonable time to provide a PMP when IDEM, OAQ requests it. The record keeping requirements have been added to this condition as follows:

B.7~~C.3~~ Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; **and**

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) **A copy of the** PMPs shall be submitted to IDEM, OAQ, upon request **and within a reasonable time**, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. **The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).**

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

Change 5:

Condition B.8 (Permit Revision) has been moved to Section B from Section C. Paragraph (a) has been revised because IDEM, OAQ, does not want a source to be liable for both a permit violation and a rule violation. By changing this language IDEM, OAQ, is merely referencing the requirements and not mandating compliance with it. Paragraph (b) has been changed to replace "should" with "shall", and "the" authorized individual has been replaced with "an" authorized individual, because the rule does not specify that it has to be one individual. This change was made throughout the permit

B.8~~C.4~~ Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) ~~The Permittee must comply with~~ **Permit revisions are governed by** the requirements of 326 IAC 2-6.1-6 ~~whenever the Permittee seeks to amend or modify this permit~~.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application ~~should~~ **shall** be certified by ~~the~~ **an** "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

Change 6:

Conditions B.9 (Inspection and Entry) and B.10 (Transfer of Ownership) have both been moved to Section B from Section C.

B.9~~C.5~~ Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

B.10~~C.6~~Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Change 7:

Condition B.11 (Annual Fee Payment) was added to the permit as follows:

B.11 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.

(b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

Change 8:

Condition C.1 (Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour) has been added as follows, with all following C Conditions re-numbered accordingly:

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

(a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

Change 9:

Conditions C.1 (PSD Minor Source Status) and C.2 (Hazardous Air Pollutants) have been removed from the permit as follows:

~~C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]~~

~~(a) The total source potential to emit of PM, PM_{10}, SO_2, VOC, NO_x and CO is less than two hundred fifty (250) tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.~~

~~(b) Any change or modification which may increase the potential to emit PM_{10}, SO_2, VOC, NO_x or CO to one hundred (100) tons per year from this source, shall cause this source to be considered a major source under 326 IAC 2-7, and shall require approval from IDEM, OAQ prior to making the change.~~

~~C.2 Hazardous Air Pollutants (HAPs) [326 IAC 2-7]~~

~~Any change or modification which may increase potential to emit to ten (10) tons per year of any single hazardous air pollutant, twenty-five (25) tons per year of any combination of hazardous air pollutants from this source, shall cause this source to be considered a major source under Part 70 Permit Program, 326 IAC 2-7, and shall require approval from IDEM, OAQ prior to making the change.~~

Change 10:

Condition C.7 (now C.2) (Permit Revocation) rule cite was corrected:

C.~~7~~**2** Permit Revocation ~~[326 IAC 2-1-9]~~ **[326 IAC 2-1.1-9]**

Change 11:

In Condition C.9 (now C.4), the statement that "326 IAC 6-4-2(4) is not federally enforceable" has been removed:

C.~~9~~**4** Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). ~~326 IAC 6-4-2(4) is not federally enforceable.~~

Change 12:

Condition C.6 (Asbestos Abatement Projects) has been added as follows:

C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

**Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015**

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

Change 13:

Condition C.11 (now C.7) (Performance Testing) has been rearranged for clarity. Language has also been added to indicate that the test protocol and the notification of the test date do not require certification by the authorized individual. In paragraph (c), "within" has been changed to "not later than".

C.~~11~~**7** Performance Testing [326 IAC 3-6]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. ~~The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.~~

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14 days) prior to the actual test date.

~~(b)~~**(c) Pursuant to 326 IAC 3-6-4(b), all** ~~All~~ test reports must be received by IDEM, OAQ ~~within~~ **not later than** forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation ~~within~~ **not later than** five (5) days prior to the end of the initial forty-five (45) day period.

~~The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.~~

Change 14:

Condition C.8 Compliance Requirements is a new condition that refers to our general compliance authority in 326 IAC 2-1.1-11:

Compliance Requirements [326 IAC 2-1.1-11]

C.8 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

Change 15:

The following rule cites have been added to Condition C.13 (now C.10):

C.1~~3~~**0** Monitoring Methods [326 IAC 3] **[40 CFR 60] [40 CFR 63]**

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, **40 CFR 60, Appendix B, 40 CFR 63**, or other approved methods as specified in this permit.

Change 16:

Condition C.15 (now C.12) (Actions Related to Noncompliance Demonstrated by a Stack Test) has been revised as follows. "Corrective actions" has been changed to "response actions" to be consistent with the rest of the permit:

C.1~~5~~**2** Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate ~~corrective~~ **response** actions. The Permittee shall submit a description of these ~~corrective~~ **response** actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize **excess** emissions from the affected emissions unit while the ~~corrective~~ **response** actions are being implemented. ~~IDEM, OAQ shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ reserves the authority to use enforcement activities to resolve noncompliant stack tests.~~

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline. ~~Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.~~

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by ~~the~~ **an** "authorized individual" as defined by 326 IAC 2-1.1-1.

Change 17:

Condition C.17 (Monitoring Data Availability) has been removed:

~~C.17 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]~~

~~(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.~~

~~(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.~~

~~(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.~~

~~(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.~~

~~(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.~~

~~(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.~~

Change 18:

Condition C.18, (now C.14) (General Record Keeping Requirements) has been revised to be more consistent with the rules and to assure sources that they get a “reasonable time” to produce records no matter how or when we ask for them. Paragraphs (b) and (c) have been removed because they were unnecessary:

C.1~~8~~**4** General Record Keeping Requirements [326 IAC 2-6.1-~~2~~ **5**]

(a) Records of all required ~~monitoring~~ data, **reports** and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years ~~and available upon the request of an IDEM, OAQ representative~~. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a ~~written~~ request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

~~(b) Records of required monitoring information shall include, where applicable:~~

~~(1) The date, place, and time of sampling or measurements;~~

~~(2) The dates analyses were performed;~~

~~(3) The company or entity performing the analyses;~~

~~(4) The analytic techniques or methods used;~~

~~(5) The results of such analyses; and~~

~~(6) The operating conditions existing at the time of sampling or measurement.~~

~~(c) Support information shall include, where applicable:~~

~~(1) Copies of all reports required by this permit;~~

~~(2) All original strip chart recordings for continuous monitoring instrumentation;~~

~~(3) All calibration and maintenance records;~~

~~(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.~~

~~(d)~~ **(b) Unless otherwise specified in this permit, a~~~~A~~ll record keeping requirements not already legally required shall be implemented when operation begins.

Appendix A: Laser Cutting

Company Name: LAU Industries, Inc.
Address City IN Zip: 843 Indianapolis Avenue, Lebanon, IN 46502
MSOP: 011-14721-00039
Reviewer: Craig J. Friederich
Date: August 3, 2001

PROCESS WELDING	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS * (lb pollutant / lb electrode) PM = PM10	Mn	Ni	Cr	EMISSIONS (lb/hr) PM = PM10	Mn	Ni	Cr	TOTAL HAPS (lb/hr)
Submerged Arc	0	0		0.036				0.000	0	0.000	0	0.000
Metal Inert Gas (MIG)(ER5154)	0	0		0.0241	0.00003		0.00001	0.000	0	0.000	0	0.000
Stick (E7018 electrode)	0	0		0.0211				0.000	0	0.000	0	0.000
Tungsten Inert Gas (TIG)(carbon steel)	0	0		0.0055				0.000	0	0.000	0	0.000
Oxyacetylene(carbon steel)	0	0		0.0055				0.000	0	0.000	0	0.000
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick) PM = PM10	Mn	Ni	Cr	EMISSIONS (lbs/hr) PM = PM10	Mn	Ni	Cr	TOTAL HAPS (lb/hr)
Oxyacetylene	1	0.0478	453	0.1622	0.0005	0.0001	0.0003	0.211	0.001	0.000	0.000	0.001
Oxymethane	0	0	0	0.0815	0.0002		0.0002	0.000	0.000	0.000	0.000	0.000
Plasma	0	0	0					0.000	0.000	0.000	0.000	0.000
EMISSION TOTALS								PM = PM10	Mn	Ni	Cr	Total HAPs
Potential Emissions lbs/hr								0.21	0.00	0.00	0.00	0.00
Potential Emissions lbs/day								5.06	0.02	0.00	0.01	0.03
Potential Emissions tons/year								**0.92**	0.003	0.00	0.00	0.005

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)
Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.
Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994).
Welding and other flame cutting emission factors are from an internal training session document.
See AP-42, Chapter 12.19 for additional emission factors for welding.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for
a Minor Source Operating Permit

Source Background and Description

Source Name:	**LAU Industries, Inc.**
Source Location:	**843 Indianapolis Avenue, Lebanon, Indiana 46052**
County:	**Boone**
SIC Code:	**3564**
Operation Permit No.:	**MSOP 011-14721-00039**
Permit Reviewer:	**Craig J. Friederich**

The Office of Air Quality (OAQ) has reviewed an application from LAU Industries, Inc. relating to the operation of a fan manufacturing source.

History

LAU Industries, Inc. was issued a Federally Enforceable State Operating Permit (FESOP 011-6263-00039) on December 10, 1996. On August 3, 2001, LAU Industries, Inc. submitted an application to the OAQ requesting a transition from a FESOP to a Minor Source Operating Permit (MSOP). The source has remodeled the plant and removed several pieces of equipment. Also, the source has changed paint formulations at the three (3) spray booths to utilize low-HAPs solvents. The maximum production rates were overestimated by the source in the original FESOP application and have since been scaled back. As a result of these changes, the unrestricted potential to emit of PM_{10} from the entire source is less than one-hundred (100) tons per year, the potential to emit individual HAPs is less than ten (10) tons per year, and the potential to emit combined HAPs is less than twenty-five (25) tons per year, which are all less than the Part 70 thresholds. The potential to emit of VOC is still less than one-hundred (100) tons per year. Therefore, an MSOP is proposed for this source.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) One (1) paint spray booth, known as Booth 1, equipped with air atomization and HVLP spray applicators, and dry filters for PM overspray control, installed in 1964, reconstructed in 2002, exhausted through stack P/1, capacity: 42 fan parts per hour.

(b) One (1) paint spray booth, known as Booth 2, equipped with air atomization and HVLP spray applicators, and dry filters for PM overspray control, installed in 1974, reconstructed in 2002, exhausted through stack P/2, capacity: 21 fan parts per hour.

(c) One (1) paint spray booth, known as Booth 3, equipped with air atomization and HVLP spray applicators, and dry filters for PM overspray control, installed in 1984, reconstructed in 2002, exhausted through stack P/3, capacity: 4 compressor units per hour.

(d) One (1) coal slag shot blaster, known as Clemco Blaster, installed in 1984, equipped with a pleated paper filter for PM control exhausted through Stack 5, capacity: 494 pounds per hour.

(e) Two (2) natural gas-fired air make-up units, identified as MUA-1 and MUA-2, installed in May 2002, rated at: 4.00 million British thermal units per hour, each.

(f) Twelve (12) Metal Inert Gas (MIG) welding stations, capacity: 7.00 pounds of wire per hour, each.

(g) Three (3) Stick welding stations, capacity: 1.80 pounds of wire per hour, each.

(h) Three (3) Tungsten Inert Gas (TIG) welding stations, capacity: 2.00 pounds of wire per hour, each.

(i) One (1) plasma flame cutting station, equipped with a torit dust collector for particulate matter (PM) control, exhausted inside the building, capacity: 180 inches of metal per minute.

(j) One (1) radial arm saw, equipped with a fabric dust collector for particulate matter (PM) control, installed in 1964, exhausted inside the building, capacity: 70.6 pounds of wood per hour.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment

There are no new facilities proposed at this source during this review process.

Emission Units Removed From Service

The source has removed the following equipment since the issuance of FESOP 011-6263-00039:

(a) One (1) natural gas-fired boiler, rated at 12.6 million British thermal units per hour.

(b) Machining where an aqueous cutting coolant continuously floods the machining interface.

(c) Cleaners and solvents characterized as follows: having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38EC (100EF) or; having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

Existing Approvals

(a) F 011-6263-00039 , issued on December 10, 1996; and

(b) AAF 011-11027-00039, issued on July 28, 1998.

All conditions from previous approvals were incorporated into this permit except the following:

FESOP 011-6263-00039, issued on December 10, 1996

Condition D.1.1: This condition limited the HAPs emissions to less than FESOP thresholds.

Reason not incorporated: With the changes to the coating formulations to low-HAPs paints, the unrestricted potential to emit of HAPs from the entire source are below FESOP thresholds. Therefore, the emission limitation in Condition D.1.1 is no longer needed.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
Stack 1	Paint Booth 1	26.6	3.5	39,000	70
Stack 2	Paint Booth 2	26.6	3.5	39,000	70
Stack 3	Paint Booth 3	26.5	3.5	39,000	70
Stack 5	Shot Blaster	26.5	1.5	n/a	70

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on August 3, 2001, with additional information received on April 4, 2002.

Emission Calculations

See Appendix A (pages 1 through 13 of 13) of this document for detailed emissions calculations.

Plasma Flame Cutting

Assuming that the cut is 1/8-inch wide, with the stated metal thickness of 0.0478 inch and a cutting rate of 180 inches per minute results in 64.53 cubic inches per hour cut. Using the density of iron, 0.72255 pounds per cubic inch, 64.53 cubic inches per hour = 46.6 pounds per hour. Assuming that 1% of the metal cut is converted to fumes, the PM emission rate is 0.466 pounds per hour, or 2.04 tons per year, before controls. The plasma cutter is equipped with a torit dust collector for PM control. The control efficiency is 90%. Therefore, potential to emit after controls is 2.04 tons per year X (1-.90) = 0.204 tons per year, which is equivalent to 0.046 pounds per hour.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	**Potential To Emit** (tons/year)
PM	110
PM_{10}	84.0
SO_2	0.021
VOC	9.75
CO	2.94
NO_X	3.50

HAPs	**Potential To Emit** (tons/year)
Benzene	0.00007
Dichlorobenzene	0.00004
Formaldehyde	0.003
Hexane	0.063
Toluene	0.275
Lead	0.00002
Cadmium	0.00004
Chromium	0.00005
Manganese	0.013
Nickel	0.00007
Ethyl benzene	1.11
Ethylene Glycol Mono Butyl Ether	1.55
Hexamethylene Diisocyanate	0.005
Cumene	0.140
Xylene	6.48
MIBK	1.13

MEK	3.12
Ethylene Glycol	0.453
TOTAL	14.3

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM and PM_{10} are equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1.

(b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD applicability.

Actual Emissions

No previous emission data has been received from the source.

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**	**HAPs**
Three (3) Spray Booths	0.779	0.779	0.00	9.56	0.00	0.00	7.76
One (1) coal slag shot blaster	7.97*	7.97*	0.00	0.00	0.00	0.00	0.00
Welding Operations	28.6*	28.6*	0.00	0.00	0.00	0.00	0.02
One (1) Radial Arm Saw	2.41*	2.41*	0.00	0.00	0.00	0.00	0.00
Flame Cutting Operations	2.41*	2.41*	0.00	0.00	0.00	0.00	0.00
Two (2) Natural Gas Fired Air Make-Up Units	0.067	0.226	0.021	0.193	2.94	3.50	0.066
Total Emissions	42.2	42.4	0.021	9.75	2.94	3.50	7.85

* PM values reflect the allowable emissions pursuant to 326 IAC 6-3-2, and the PM_{10} emissions have been set equal to the PM values for these emission units.

County Attainment Status

The source is located in Boone County.

Pollutant	Status
PM_{10}	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Boone County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Boone County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, based on the emissions summarized in this proposed permit, MSOP 103-13816-00025, is no longer subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than one hundred (100) tons per year,

(b) a single hazardous air pollutant (HAP) is less than ten (10) tons per year, and

(c) any combination of HAPs is less than twenty-five (25) tons/year.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Boone County and the potential to emit all criteria pollutants is less than one hundred (100) tons per year, therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies)

(a) Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies) and 40 CFR 52 Subpart P, the particulate matter (PM) from the three (3) paint spray booths, identified as Booth 1, Booth 2, and Booth 3 shall be controlled by dry particulate filters, and the control device shall be operated in accordance with manufacturer's specifications.

(b) The particulate matter (PM) from the coal slag shot blaster, known as Clemco Blaster shall be limited to 1.82 pounds per hour at a process weight rate of 595 pounds of metal fan parts per hour using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Based on Appendix A, the potential PM emission rate, after controls, is:

1.77 ton/yr × (2000 lbs/ton / 8760 hrs/yr) = 0.404 lb/hr

The PM emissions from the coal slag shot blaster, known as Clemco Blaster, are 0.404 pounds of PM per hour, which is less than the allowable of 1.82 pounds of PM per hour. Therefore, the coal slag shot blaster, known as Clemco Blaster, is in compliance with this rule.

The pleated paper filter shall be in operation at all times the coal slag shotblaster is in operation, in order to comply with this limit.

(c) The particulate matter (PM) from the radial arm saw, shall be limited to 0.551 pounds per hour at a process weight rate of less than 100 pounds per hour.

Based on Appendix A, the potential PM emission rate, after controls, is:

0.237 ton/yr × (2000 lbs/ton / 8760 hrs/yr) = 0.054lb/hr

The PM emissions from the radial arm saw are 0.054 pounds of PM per hour, which is less than the allowable of 0.551 pounds of PM per hour. Therefore, the radial arm saw is in compliance with this rule.

The fabric dust collector shall be in operation at all times the radial arm saw is in operation, in order to comply with this limit.

(d) The particulate matter (PM) from the twelve (12) Metal Inert Gas (MIG) welding stations, the three (3) stick welding stations, and the three (3) Tungsten Inert Gas (TIG) welding stations shall be limited to 6.52 pounds of PM per hour at a process weight rate of 4,000 pounds per hour using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Based on Appendix A, the potential PM emission rate, after controls, is:

9.51 ton/yr × (2000 lbs/ton / 8760 hrs/yr) = 2.17 lbs/hr

The PM emissions from the welding operations are 2.17 pounds of PM per hour, which is less than the allowable of 6.52 pounds of PM per hour. Therefore, the welding operations are in compliance with this rule.

(e) The particulate matter (PM) from the one (1) plasma flame cutting station shall be limited to 0.551 pounds of PM per hour at a process weight rate of less than 100 pounds per hour.

The potential PM emission rate, after controls, is:

0.204 ton/yr × (2000 lbs/ton / 8760 hrs/yr) = 0.046 lb/hr

The PM emissions from the plasma cutting operations are 0.046 pounds of PM per hour, which is less than the allowable of 0.551pounds of PM per hour. Therefore, the plasma cutting operations are in compliance with this rule.

The torit dust collector shall be in operation at all times the plasma flame cutting station is in operation, in order to comply with this limit.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

(a) The two (2) paint spray booths, known as Booth 1 and Booth 2, both reconstructed in 2002, are subject to the requirements of 326 IAC 8-2-9 because each booth was reconstructed after the rule applicability date of November 1, 1980. Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating

applied to the metal fan parts shall be limited to three and five tenths (3.5) pounds of VOC per gallon of coating less water, for extreme performance coatings. The coatings used at Booth 1 and Booth 2 must show compliance with the three and five tenths (3.5) pounds of VOC per gallon of coating less water limit based on a daily volume weighted average as calculated with the following equation, excluding clean-up solvents:

$$\frac{\sum_{c=1}^{c=n} \text{production rate (units/day)} \times \text{coating (gallons/unit)} \times \text{VOC content (pounds/gallons of coating less water)}}{\sum_{c=1}^{c=n} \text{production rate (units/day)} \times \text{coating (gallons/unit)}}$$

Based on sample calculations provided by the source for a representative day (TSD Appendix A, page 13 of 13), Booth 1 and Booth 2 will be in compliance with this limit.

(b) The one (1) paint spray booth, known as Booth 3, installed in 1984, reconstructed in 2002, is not subject to the requirements of 326 IAC 8-2-9 because this booth has the potential to emit VOC of less than fifteen (15) pounds per day. Any change or modification which would increase the potential to emit VOC to fifteen (15) pounds per day or more from this paint spray booth shall obtain prior approval from IDEM, OAQ.

Conclusion

The operation of this fan manufacturing source shall be subject to the conditions of the attached proposed Minor Source Operating Permit 011-14721-00039.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: LAU Industries, Inc.
Address City IN Zip: 843 Indianapolis Avenue, Lebanon, Indiana 46052
MSOP: 011-14721
Plt ID: 011-00039
Reviewer: Craig J. Friederich
Date: August 3, 2001

Products Used	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
Booth 1																
Patriot Gray W.R. Enamel 3-0948	10.59	26.50%	0.0%	26.5%	0.0%	81.30%	0.00530	42.0	2.81	2.81	0.62	14.99	2.74	3.79	3.45	50%
Heresite - Brown VR504	7.84	53.50%	0.0%	53.5%	0.0%	46.50%	0.00530	42.0	4.19	4.19	0.93	22.41	4.09	1.78	9.02	50%
Heat Resistant Black B68BA2	8.86	61.40%	0.0%	61.4%	0.0%	24.00%	0.00530	42.0	5.44	5.44	1.21	29.06	5.30	1.67	22.67	50%
Hi-Temp Alum S/W B59S8	9.04	57.40%	0.0%	57.4%	0.0%	26.20%	0.00530	42.0	5.19	5.19	1.16	27.72	5.06	1.88	19.81	50%
Lu Red KA 393	8.30	59.00%	0.0%	59.0%	0.0%	40.00%	0.00530	42.0	4.90	4.90	1.09	26.16	4.77	1.66	12.24	50%
Harnish Dupont LF-633234P	9.58	36.20%	0.0%	36.2%	0.0%	49.40%	0.00530	42.0	3.47	3.47	0.77	18.53	3.38	2.98	7.02	50%
Beard W.R Primer	10.17	3.80%	0.0%	3.8%	0.0%	94.70%	0.00530	42.0	0.39	0.39	0.09	2.06	0.38	4.77	0.41	50%
Beard W.R. Red	8.51	6.80%	0.0%	6.8%	0.0%	93.20%	0.00530	42.0	0.58	0.58	0.13	3.09	0.56	3.87	0.62	50%
Epoxy Primer																
Epoxy Primer B-67 H5	13.95	19.60%	0.0%	19.6%	0.0%	n/a	0.00246	42.0	2.73	2.73	0.28	6.79	1.24	2.54	n/a	50%
Epoxy Hardener B67V5	12.61	18.10%	0.0%	18.1%	0.0%	n/a	0.00246	42.0	2.28	2.28	0.24	5.67	1.03	2.34	n/a	50%
Reducer R7K54	6.75	100.00%	0.0%	100.0%	0.0%	n/a	0.00037	42.0	6.75	6.75	0.11	2.52	0.46	0.00	n/a	50%
Epoxy Primer Totals	12.82	21.88%	0.00%	21.88%	0.0%	0.0%	0.00530	42.0	2.81	2.81	**0.62**	**14.99**	**2.74**	**4.88**	n/a	50%
Epoxy Finish																
Epoxy Finish B62W102	10.45	37.20%	0.0%	37.2%	0.0%	n/a	0.00246	42.0	3.89	3.89	0.40	9.66	1.76	1.49	n/a	50%
Epoxy Hardener B67V5	12.61	18.10%	0.0%	18.1%	0.0%	n/a	0.00246	42.0	2.28	2.28	0.24	5.67	1.03	2.34	n/a	50%
Reducer R7K54	6.75	100.00%	0.0%	100.0%	0.0%	n/a	0.00037	42.0	6.75	6.75	0.11	2.52	0.46	0.00	n/a	50%
Epoxy Finish Totals	11.20	29.85%	0.0%	29.8%	0.0%	n/a	0.00530	42.0	3.34	3.34	**0.74**	**17.85**	**3.26**	**3.83**	n/a	50%
California Finishes																
6409 Gloss High Solids Polyurethane	9.75	39.00%	0.0%	39.0%	0.0%	n/a	0.00353	42.0	3.80	3.80	0.56	13.53	2.47	1.93	n/a	50%
1602 Polyurethane Medium Reducer	7.03	100.00%	0.0%	100.0%	0.0%	n/a	0.00089	42.0	7.03	7.03	0.26	6.27	1.14	0.00	n/a	50%
340HP Urethane Catalyst-Exterior	9.60	8.60%	0.0%	8.6%	0.0%	n/a	0.00089	42.0	0.83	0.83	0.03	0.74	0.13	0.71	n/a	50%
California Finishes Totals	9.27	41.47%	0.0%	41.5%	0.0%	n/a	0.00530	42.0	3.84	3.84	**0.86**	**20.54**	**3.75**	**2.65**	n/a	50%
Wash Primer For Galvanized Metal																
Wash Primer S/W P60G2	7.44	75.00%	0.0%	75.0%	0.0%	n/a	0.00173	42.0	5.58	5.58	0.40	9.72	1.77	0.30	n/a	50%
Wash Primer Catalyst S/W R7K44	6.76	95.00%	0.0%	75.0%	0.0%	n/a	0.00357	42.0	5.07	5.07	0.76	18.26	3.33	0.11	n/a	50%
Wash Primer For Galvanized Metal Totals	6.98	88.05%	0.0%	88.1%	0.0%	n/a	0.00530	42.0	6.15	6.15	**1.37**	**32.84**	**5.99**	**0.41**	n/a	50%

		PM	Control Efficiency	90.00%				
State Potential Emissions	**Add worst case coating to all solvents**	**Booth 1**	**Uncontrolled**		**1.37**	**32.84**	**5.99**	**4.88**
			Controlled		**1.37**	**32.84**	**5.99**	**0.488**

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: LAU Industries, Inc.
Address City IN Zip: 843 Indianapolis Avenue, Lebanon, Indiana 46052
MSOP: 011-14721
Plt ID: 011-00039
Reviewer: Craig J. Friederich
Date: August 3, 2001

Products Used	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
Booth 2																
Patriot Gray W.R. Enamel 3-0948	10.59	26.50%	0.0%	26.5%	0.0%	81.30%	0.00530	21.0	2.81	2.81	0.31	7.50	1.37	1.90	3.45	50%
Heresite - Brown VR504	7.84	53.50%	0.0%	53.5%	0.0%	46.50%	0.00530	21.0	4.19	4.19	0.47	11.20	2.04	0.89	9.02	50%
Heat Resistant Black B68BA2	8.86	61.40%	0.0%	61.4%	0.0%	24.00%	0.00530	21.0	5.44	5.44	0.61	14.53	2.65	0.83	22.67	50%
Hi-Temp Alum S/W B59S8	9.04	57.40%	0.0%	57.4%	0.0%	26.20%	0.00530	21.0	5.19	5.19	0.58	13.86	2.53	0.94	19.81	50%
Lu Red KA 393	8.30	59.00%	0.0%	59.0%	0.0%	40.00%	0.00530	21.0	4.90	4.90	0.55	13.08	2.39	0.83	12.24	50%
Harnish Dupont LF-633234P	9.58	36.20%	0.0%	36.2%	0.0%	49.40%	0.00530	21.0	3.47	3.47	0.39	9.26	1.69	1.49	7.02	50%
Beard W.R Primer	10.17	3.80%	0.0%	3.8%	0.0%	94.70%	0.00530	21.0	0.39	0.39	0.04	1.03	0.19	2.38	0.41	50%
Beard W.R. Red	8.51	6.80%	0.0%	6.8%	0.0%	93.20%	0.00530	21.0	0.58	0.58	0.06	1.55	0.28	1.93	0.62	50%
Epoxy Primer																
Epoxy Primer B-67 H5	13.95	19.60%	0.0%	19.6%	0.0%	n/a	0.00246	21.0	2.73	2.73	0.14	3.40	0.62	1.27	n/a	50%
Epoxy Hardener B67V5	12.61	18.10%	0.0%	18.1%	0.0%	n/a	0.00246	21.0	2.28	2.28	0.12	2.83	0.52	1.17	n/a	50%
Reducer R7K54	6.75	100.00%	0.0%	100.0%	0.0%	n/a	0.00037	21.0	6.75	6.75	0.05	1.26	0.23	0.00	n/a	50%
Epoxy Primer Totals	12.82	21.88%	0.00%	21.88%	0.0%	0.0%	0.00530	21.0	2.81	2.81	**0.31**	**7.49**	**1.37**	**2.44**	n/a	50%
Epoxy Finish																
Epoxy Finish B62W102	10.45	37.20%	0.0%	37.2%	0.0%	n/a	0.00246	21.0	3.89	3.89	0.20	4.83	0.88	0.74	n/a	50%
Epoxy Hardener B67V5	12.61	18.10%	0.0%	18.1%	0.0%	n/a	0.00246	21.0	2.28	2.28	0.12	2.83	0.52	1.17	n/a	50%
Reducer R7K54	6.75	100.00%	0.0%	100.0%	0.0%	n/a	0.00037	21.0	6.75	6.75	0.05	1.26	0.23	0.00	n/a	50%
Epoxy Finish Totals	11.20	29.85%	0.0%	29.8%	0.0%	n/a	0.00530	21.0	3.34	3.34	**0.37**	**8.93**	**1.63**	**1.91**	n/a	50%
California Finishes																
6409 Gloss High Solids Polyurethane	9.75	39.00%	0.0%	39.0%	0.0%	n/a	0.00353	21.0	3.80	3.80	0.28	6.76	1.23	0.97	n/a	50%
1602 Polyurethane Medium Reducer	7.03	100.00%	0.0%	100.0%	0.0%	n/a	0.00089	21.0	7.03	7.03	0.13	3.14	0.57	0.00	n/a	50%
340HP Urethane Catalyst-Exterior	9.60	8.60%	0.0%	8.6%	0.0%	n/a	0.00089	21.0	0.83	0.83	0.02	0.37	0.07	0.36	n/a	50%
California Finishes Totals	9.27	41.47%	0.0%	41.5%	0.0%	n/a	0.00530	21.0	3.84	3.84	**0.43**	**10.27**	**1.87**	**1.32**	n/a	50%
Wash Primer For Galvanized Metal																
Wash Primer P 602	7.44	75.00%	0.0%	75.0%	0.0%	n/a	0.00173	21.0	5.58	5.58	0.20	4.86	0.89	0.15	n/a	50%
Wash Catalyst R7K44	6.76	95.00%	0.0%	75.0%	0.0%	n/a	0.00357	21.0	5.07	5.07	0.38	9.13	1.67	0.06	n/a	50%
Wash Primer For Galvanized Metal Totals	6.98	88.05%	0.0%	88.1%	0.0%	n/a	0.00530	21.0	6.15	6.15	0.68	16.42	3.00	0.20	n/a	50%

			PM	Control Efficiency	90.00%				
State Potential Emissions	**Add worst case coating to all solvents**		**Booth 2**	**Uncontrolled**		**0.68**	**16.42**	**3.00**	**2.44**
				Controlled		**0.68**	**16.42**	**3.00**	**0.244**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

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From Surface Coating Operations

Company Name: LAU Industries, Inc.
Address City IN Zip: 843 Indianapolis Avenue, Lebanon, Indiana 46052
MSOP: 011-14721
Plt ID: 011-00039
Reviewer: Craig J. Friederich
Date: August 3, 2001

Products Used	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
Booth 3																
Patriot Gray W.R. Enamel 3-0948	10.59	26.50%	0.0%	26.5%	0.0%	81.30%	0.00530	4.00	2.81	2.81	0.06	1.43	0.26	0.36	3.45	50%
Heresite - Brown VR504	7.84	53.50%	0.0%	53.5%	0.0%	46.50%	0.00530	4.00	4.19	4.19	0.09	2.13	0.39	0.17	9.02	50%
Heat Resistant Black B68BA2	8.86	61.40%	0.0%	61.4%	0.0%	24.00%	0.00530	4.00	5.44	5.44	0.12	2.77	0.51	0.16	22.67	50%
Hi-Temp Alum S/W B59S8	9.04	57.40%	0.0%	57.4%	0.0%	26.20%	0.00530	4.00	5.19	5.19	0.11	2.64	0.48	0.18	19.81	50%
Lu Red KA 393	8.30	59.00%	0.0%	59.0%	0.0%	40.00%	0.00530	4.00	4.90	4.90	0.10	2.49	0.45	0.16	12.24	50%
Harnish Dupont LF-633234P	9.58	36.20%	0.0%	36.2%	0.0%	49.40%	0.00530	4.00	3.47	3.47	0.07	1.76	0.32	0.28	7.02	50%
Beard W.R Primer	10.17	3.80%	0.0%	3.8%	0.0%	94.70%	0.00530	4.00	0.39	0.39	0.01	0.20	0.04	0.45	0.41	50%
Beard W.R. Red	8.51	6.80%	0.0%	6.8%	0.0%	93.20%	0.00530	4.00	0.58	0.58	0.01	0.29	0.05	0.37	0.62	50%
Epoxy Primer																
Epoxy Primer B-67 H5	13.95	19.60%	0.0%	19.6%	0.0%	n/a	0.00246	4.00	2.73	2.73	0.03	0.65	0.12	0.24	n/a	50%
Epoxy Hardener B67V5	12.61	18.10%	0.0%	18.1%	0.0%	n/a	0.00246	4.00	2.28	2.28	0.02	0.54	0.10	0.22	n/a	50%
Reducer R7K54	6.75	100.00%	0.0%	100.0%	0.0%	n/a	0.00037	4.00	6.75	6.75	0.01	0.24	0.04	0.00	n/a	50%
Epoxy Primer Totals	12.82	21.88%	0.00%	21.88%	0.0%	0.0%	0.00530	4.00	2.81	2.81	**0.06**	**1.43**	**0.26**	**0.47**	n/a	50%
Epoxy Finish																
Epoxy Finish B62W102	10.45	37.20%	0.0%	37.2%	0.0%	n/a	0.00246	4.00	3.89	3.89	0.04	0.92	0.17	0.14	n/a	50%
Epoxy Hardener B67V5	12.61	18.10%	0.0%	18.1%	0.0%	n/a	0.00246	4.00	2.28	2.28	0.02	0.54	0.10	0.22	n/a	50%
Reducer R7K54	6.75	100.00%	0.0%	100.0%	0.0%	n/a	0.00037	4.00	6.75	6.75	0.01	0.24	0.04	0.00	n/a	50%
Epoxy Finish Totals	11.20	29.85%	0.0%	29.8%	0.0%	n/a	0.00530	4.00	3.34	3.34	**0.07**	**1.70**	**0.31**	**0.36**	n/a	50%
California Finishes																
6409 Gloss High Solids Polyurethane	9.75	39.00%	0.0%	39.0%	0.0%	n/a	0.00353	4.00	3.80	3.80	0.05	1.29	0.24	0.18	n/a	50%
1602 Polyurethane Medium Reducer	7.03	100.00%	0.0%	100.0%	0.0%	n/a	0.00089	4.00	7.03	7.03	0.02	0.60	0.11	0.00	n/a	50%
340HP Urethane Catalyst-Exterior	9.60	8.60%	0.0%	8.6%	0.0%	n/a	0.00089	4.00	0.83	0.83	0.00	0.07	0.01	0.07	n/a	50%
California Finishes Totals	9.27	41.47%	0.0%	41.5%	0.0%	n/a	0.00530	4.00	3.84	3.84	**0.08**	**1.96**	**0.36**	**0.25**	n/a	50%
Wash Primer For Galvanized Metal																
Wash Primer S/W P60G2	7.44	75.00%	0.0%	75.0%	0.0%	n/a	0.00173	4.00	5.58	5.58	0.04	0.93	0.17	0.03	n/a	50%
Wash Primer Catalyst S/W R7K44	6.76	95.00%	0.0%	75.0%	0.0%	n/a	0.00357	4.00	5.07	5.07	0.07	1.74	0.32	0.01	n/a	50%
Wash Primer For Galvanized Metal Totals	6.98	88.05%	0.0%	88.1%	0.0%	n/a	0.00530	4.00	6.15	6.15	0.13	3.13	0.57	0.04	n/a	50%

			PM	Control Efficiency	90.00%			
State Potential Emissions	**Add worst case coating to all solvents**	**Booth 3**	**Uncontrolled**		**0.13**	**3.13**	**0.57**	**0.47**
			Controlled		**0.13**	**3.13**	**0.57**	**0.047**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: LAU Industries, Inc.
Address City IN Zip: 843 Indianapolis Avenue, Lebanon, Indiana 46052
MSOP: 011-14721
Plt ID: 011-00039
Reviewer: Craig J. Friederich
Date: August 3, 2001

Products Used - Sheet 1	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % MIBK	Weight % MEK	Weight % Ethylene Glycol	Weight % Ethyl Benzene	Weight % Ethylene Glycol mono butyl ether	Weight % Toluene	Weight % Cumene	Weight % Hexamethylene Diisocyanate	Xylene Emissions (tons/yr)	MIBK Emissions (tons/yr)	MEK Emissions (tons/yr)	Ethylene Glycol Emissions (tons/yr)	Ethylbenzene Emissions (tons/yr)	Ethylene glycol mono butyl ether Emissions (tons/yr)	Toluene Emissions (tons/yr)	Cumene Emissions (tons/yr)	Hexamethylene Diisocyanate Emissions (tons/yr)	Total HAPs (tons/yr)
Booth 1																						
Patriot Gray W.R. Enamel 3-0948	10.59	0.0053	42.0	0.00%	0.00%	0.00%	0.00%	0.00%	9.40%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.97	0.00	0.00	0.00	0.971
Heresite - Brown VR504	7.84	0.0053	42.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000
Heat Resistant Black B68BA2	8.86	0.0053	42.0	47.00%	0.00%	0.00%	0.00%	8.00%	0.00%	2.00%	0.00%	0.00%	4.06	0.00	0.00	0.00	0.69	0.00	0.17	0.00	0.00	4.92
Hi-Temp Alum S/W B59S8	9.04	0.0053	42.0	14.00%	0.00%	0.00%	0.00%	3.00%	0.00%	0.00%	1.00%	0.00%	1.23	0.00	0.00	0.00	0.26	0.00	0.00	0.09	0.00	1.59
Lu Red KA 393	8.30	0.0053	42.0	35.90%	0.00%	0.00%	0.00%	5.30%	0.00%	0.00%	0.00%	0.00%	2.91	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.00	3.33
Harnish Dupont LF-633234P	9.58	0.0053	42.0	21.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.96	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00	2.43
Beard W.R Primer	10.17	0.0053	42.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000
Beard W.R. Red	8.51	0.0053	42.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000
Epoxy Primer																						
Epoxy Primer B-67 H5	13.95	0.0025	42.0	14.00%	0.00%	0.00%	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.89	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	1.08
Epoxy Hardener B67V5	12.61	0.0025	42.0	9.00%	0.00%	0.00%	0.00%	2.00%	0.00%	0.00%	0.00%	0.00%	0.51	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.629
Reducer R7K54	6.75	0.0004	42.0	22.00%	51.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00%	0.00%	0.10	0.23	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.355
Epoxy Primer Totals	12.82	0.0053	42.0										**1.50**	**0.23**	**0.00**	**0.00**	**0.32**	**0.00**	**0.00**	**0.00**	**0.00**	**2.06**
Epoxy Finish																						
Epoxy Finish B62W102	10.45	0.0025	42.0	12.00%	0.00%	0.00%	6.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.57	0.00	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.853
Epoxy Hardener B67V5	12.61	0.0025	42.0	9.00%	0.00%	0.00%	0.00%	2.00%	0.00%	0.00%	0.00%	0.00%	0.51	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.629
Reducer R7K54	6.75	0.0004	42.0	22.00%	51.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00%	0.00%	0.10	0.23	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.355
Epoxy Finish Totals	11.20	0.0053	42.0										**1.18**	**0.23**	**0.00**	**0.28**	**0.13**	**0.00**	**0.00**	**0.00**	**0.00**	**1.84**
California Finishes																						
6409 Gloss High Solids Polyurethane	9.75	0.0035	42.0	0.00%	0.00%	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.127
1602 Polyurethane Medium Reducer	7.03	0.0009	42.0	0.00%	0.00%	24.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.275
340HP Urethane Catalyst-Exterior	9.60	0.0009	42.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.20%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.003	0.003
California Finishes Totals	9.27	0.0053	42.0										**0.00**	**0.00**	**0.40**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.003**	**0.404**
Wash Primer For Galvanized Metal																						
Wash Primer S/W P60G2	7.44	0.0017	42.0	2.00%	30.00%	0.00%	0.00%	0.00%	0.00%	2.00%	0.00%	0.00%	0.05	0.71	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.804
Wash Primer Catalyst S/W R7K44	6.76	0.0036	42.0	0.00%	0.00%	44.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	1.95	0.00	0.00	0.00	0.00	0.00	0.00	1.95
Wash Primer For Galvanized Metal Totals													**0.05**	**0.71**	**1.95**	**0.00**	**0.00**	**0.00**	**0.05**	**0.00**	**0.00**	**2.76**
									Booth 1 Worst Case:		**Individual Total**		**4.06**	**0.709**	**1.95**	**0.284**	**0.691**	**0.971**	**0.173**	**0.088**	**0.003**	**4.92**
METHODOLOGY											**Overall Total**		**4.92**									

HAPS emission rate (tons/yr) = Density (lbs/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: LAU Industries, Inc.
Address City IN Zip: 843 Indianapolis Avenue, Lebanon, Indiana 46052
MSOP: 011-14721
Plt ID: 011-00039
Reviewer: Craig J. Friederich
Date: August 3, 2001

Products Used - Sheet 1	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % MIBK	Weight % MEK	Weight % Ethylene Glycol	Weight % Ethyl Benzene	Weight % Ethylene Glycol mono butyl ether	Weight % Toluene	Weight % Cumene	Weight % Hexamethylene Diisocyanate	Xylene Emissions (tons/yr)	MIBK Emissions (tons/yr)	MEK Emissions (tons/yr)	Ethylene Glycol Emissions (tons/yr)	Ethylbenzene Emissions (tons/yr)	Ethylene glycol mono butyl ether Emissions (tons/yr)	Toluene Emissions (tons/yr)	Cumene Emissions (tons/yr)	Hexamethylene Diisocyanate Emissions (tons/yr)	Total HAPs (tons/yr)
Booth 2																						
Patriot Gray W.R. Enamel 3-0948	10.59	0.0053	21.0	0.00%	0.00%	0.00%	0.00%	0.00%	9.40%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.485
Heresite - Brown VR504	7.84	0.0053	21.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000
Heat Resistant Black B68BA2	8.86	0.0053	21.0	47.00%	0.00%	0.00%	0.00%	8.00%	0.00%	2.00%	0.00%	0.00%	2.03	0.00	0.00	0.00	0.35	0.00	0.09	0.00	0.00	2.46
Hi-Temp Alum S/W B59S8	9.04	0.0053	21.0	14.00%	0.00%	0.00%	0.00%	3.00%	0.00%	0.00%	1.00%	0.00%	0.62	0.00	0.00	0.00	0.13	0.00	0.00	0.04	0.00	0.793
Lu Red KA 393	8.30	0.0053	21.0	35.90%	0.00%	0.00%	0.00%	5.30%	0.00%	0.00%	0.00%	0.00%	1.45	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	1.67
Harnish Dupont LF-633234P	9.58	0.0053	21.0	21.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.98	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	1.21
Beard W.R Primer	10.17	0.0053	21.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000
Beard W.R. Red	8.51	0.0053	21.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000
Epoxy Primer																						
Epoxy Primer B-67 H5	13.95	0.0025	21.0	14.00%	0.00%	0.00%	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.44	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.538
Epoxy Hardener B67V5	12.61	0.0025	21.0	9.00%	0.00%	0.00%	0.00%	2.00%	0.00%	0.00%	0.00%	0.00%	0.26	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.314
Reducer R7K54	6.75	0.0004	21.0	22.00%	51.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00%	0.00%	0.05	0.12	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.177
Epoxy Primer Totals	12.82	0.0053	21.0										**0.75**	**0.12**	**0.00**	**0.00**	**0.16**	**0.00**	**0.00**	**0.00**	**0.00**	**1.03**
Epoxy Finish																						
Epoxy Finish B62W102	10.45	0.0025	21.0	12.00%	0.00%	0.00%	6.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.28	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.426
Epoxy Hardener B67V5	12.61	0.0025	21.0	9.00%	0.00%	0.00%	0.00%	2.00%	0.00%	0.00%	0.00%	0.00%	0.26	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.314
Reducer R7K54	6.75	0.0004	21.0	22.00%	51.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00%	0.00%	0.05	0.12	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.177
Epoxy Finish Totals	11.20	0.0053	21.0										**0.59**	**0.12**	**0.00**	**0.14**	**0.07**	**0.00**	**0.00**	**0.00**	**0.00**	**0.918**
California Finishes																						
6409 Gloss High Solids Polyurethane	9.75	0.0035	21.0	0.00%	0.00%	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.063
1602 Polyurethane Medium Reducer	7.03	0.0009	21.0	0.00%	0.00%	24.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.137
340HP Urethane Catalyst-Exterior	9.60	0.0009	21.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.20%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.002	0.002
California Finishes Totals	9.27	0.0053	21.0										**0.00**	**0.00**	**0.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.002**	**0.202**
Wash Primer For Galvanized Metal																						
Wash Primer S/W P60G2	7.44	0.0017	21.0	2.00%	30.00%	0.00%	0.00%	0.00%	0.00%	2.00%	0.00%	0.00%	0.02	0.35	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.402
Wash Primer Catalyst S/W R7K44	6.76	0.0036	21.0	0.00%	0.00%	44.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.977
Wash Primer For Galvanized Metal Totals	6.98	0.0053	21.0										**0.02**	**0.35**	**0.98**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**1.38**
									Booth 2 Worst Case:		**Individual Total**		**2.03**	**0.355**	**0.977**	**0.142**	**0.346**	**0.485**	**0.086**	**0.044**	**0.002**	**2.46**
METHODOLOGY											**Overall Total**		**2.46**									

HAPS emission rate (tons/yr) = Density (lbs/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

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HAP Emission Calculations

Company Name: LAU Industries, Inc.
Address City IN Zip: 843 Indianapolis Avenue, Lebanon, Indiana 46052
MSOP: 011-14721
Plt ID: 011-00039
Reviewer: Craig J. Friederich
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Products Used - Sheet 1	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % MIBK	Weight % MEK	Weight % Ethylene Glycol	Weight % Ethyl Benzene	Weight % Ethylene Glycol mono butyl ether	Weight % Toluene	Weight % Cumene	Weight % Hexamethylene Diisocyanate	Xylene Emissions (tons/yr)	MIBK Emissions (tons/yr)	MEK Emissions (tons/yr)	Ethylene Glycol Emissions (tons/yr)	Ethylbenzene Emissions (tons/yr)	Ethylene glycol mono butyl ether Emissions (tons/yr)	Toluene Emissions (tons/yr)	Cumene Emissions (tons/yr)	Hexamethylene Diisocyanate Emissions (tons/yr)	Total HAPs (tons/yr)
Booth 3																						
Patriot Gray W.R. Enamel 3-0948	10.59	0.0053	4.00	0.00%	0.00%	0.00%	0.00%	0.00%	9.40%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.092
Heresite - Brown VR504	7.84	0.0053	4.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000
Heat Resistant Black B68BA2	8.86	0.0053	4.00	47.00%	0.00%	0.00%	0.00%	8.00%	0.00%	2.00%	0.00%	0.00%	0.39	0.00	0.00	0.00	0.07	0.00	0.02	0.00	0.00	0.387
Hi-Temp Alum S/W B59S8	9.04	0.0053	4.00	14.00%	0.00%	0.00%	0.00%	3.00%	0.00%	0.00%	1.00%	0.00%	0.12	0.00	0.00	0.00	0.03	0.00	0.00	0.01	0.00	0.118
Lu Red KA 393	8.30	0.0053	4.00	35.90%	0.00%	0.00%	0.00%	5.30%	0.00%	0.00%	0.00%	0.00%	0.28	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.277
Harnish Dupont LF-633234P	9.58	0.0053	4.00	21.00%	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.19	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.187
Beard W.R Primer	10.17	0.0053	4.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000
Beard W.R. Red	8.51	0.0053	4.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000
Epoxy Primer																						
Epoxy Primer B-67 H5	13.95	0.0025	4.00	14.00%	0.00%	0.00%	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.08	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.084
Epoxy Hardener B67V5	12.61	0.0025	4.00	9.00%	0.00%	0.00%	0.00%	2.00%	0.00%	0.00%	0.00%	0.00%	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.049
Reducer R7K54	6.75	0.0004	4.00	22.00%	51.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00%	0.00%	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.022
Epoxy Primer Totals	12.82	0.0053	4.00										**0.14**	**0.02**	**0.00**	**0.00**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.143**
Epoxy Finish																						
Epoxy Finish B62W102	10.45	0.0025	4.00	12.00%	0.00%	0.00%	6.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.05	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.054
Epoxy Hardener B67V5	12.61	0.0025	4.00	9.00%	0.00%	0.00%	0.00%	2.00%	0.00%	0.00%	0.00%	0.00%	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.049
Reducer R7K54	6.75	0.0004	4.00	22.00%	51.00%	0.00%	0.00%	4.00%	0.00%	0.00%	0.00%	0.00%	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.022
Epoxy Finish Totals	11.20	0.0053	4.00										**0.11**	**0.02**	**0.00**	**0.03**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.113**
California Finishes																						
6409 Gloss High Solids Polyurethane	9.75	0.0035	4.00	0.00%	0.00%	2.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.012
1602 Polyurethane Medium Reducer	7.03	0.0009	4.00	0.00%	0.00%	24.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.026
340HP Urethane Catalyst-Exterior	9.60	0.0009	4.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.20%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000
California Finishes Totals	9.27	0.0053	4.00										**0.00**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.000**	**0.038**
Wash Primer For Galvanized Metal																						
Wash Primer S/W P60G2	7.44	0.0017	4.00	2.00%	30.00%	0.00%	0.00%	0.00%	0.00%	2.00%	0.00%	0.00%	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.068
Wash Primer Catalyst S/W R7K44	6.76	0.0036	4.00	0.00%	0.00%	44.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.186
Wash Primer For Galvanized Metal Totals	6.98	0.0053	4.00										**0.00**	**0.07**	**0.19**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.186**
									Booth 2 Worst Case:		**Individual Total**		**0.387**	**0.068**	**0.186**	**0.027**	**0.066**	**0.092**	**0.016**	**0.008**	**0.000**	**0.387**
METHODOLOGY											**Overall Total**		**0.39**									

HAPS emission rate (tons/yr) = Density (lbs/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Company Name: **LAU Industries, Inc.**
Address City IN Zip: **843 Indianapolis Avenue, Lebanon, Indiana 46052**
MSOP: **011-14721**
Plt ID: **011-00039**
Reviewer: **Craig J. Friederich**
Date: **August 3, 2001**

Process	Throughput lbs/hr
Shot Blaster	494.0

	PM	PM10
Emission Factors (lbs of PM per lb of throughput)	0.041	0.041
Percentage of Emissions	100.00%	70.00%
Potential Emissions lbs/hr	20.3	14.2
Potential Emissions lbs/day	486	340
Potential Emissions tons/yr	**88.7**	**62.1**
Potential Emissions after Control (tons/yr)	**1.77**	**1.24**

Methodology
Emission Factors from Stappa Alapco, Section 3 "Abrasive Blasting"
Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs

Appendix A: Emission Calculations
Baghouse Operations

Company Name: LAU Industries, Inc.
Address City IN Zip: 843 Indianapolis Avenue, Lebanon, Indiana 46052
MSOP: 011-14721
Plt ID: 011-00039
Reviewer: Craig J. Friederich
Date: August 3, 2001

Unit ID	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (acfm.)	Emission Rate before Controls (lb/hr)	Emission Rate before Controls (tons/yr)	Emission Rate after Controls (lb/hr)	Emission Rate after Controls (tons/yr)
Saw	90.0%	0.009	700.0	0.540	2.37	0.054	0.237

Methodology

Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (sq. ft.) ((cub. ft./min.)/sq. ft.) (60 min/hr) (lb/7000 grains)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Make-Up Units

Company Name: LAU Industries, Inc.
Address City IN Zip: 843 Indianapolis Avenue, Lebanon, Indiana 46052
MSOP: 011-14721
Plt ID: 011-00039
Reviewer: Craig J. Friederich
Date: August 3, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
8.0000	70.08

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.067	0.266	0.0210	3.504	0.193	2.943

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Natural Gas Boiler
HAPs Emissions

Company Name: LAU Industries, Inc.
Address City IN Zip: 843 Indianapolis Avenue, Lebanon, Indiana 46052
MSOP: 011-14721
Plt ID: 011-00039
Reviewer: Craig J. Friederich
Date: August 3, 2001

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	7.36E-05	4.20E-05	2.63E-03	6.31E-02	1.19E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel	Total HAPs
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	1.75E-05	3.85E-05	4.91E-05	1.33E-05	7.36E-05	0.066

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Welding and Thermal Cutting

Company Name: LAU Industries, Inc.
Address City IN Zip: 843 Indianapolis Avenue, Lebanon, IN 46502
MSOP: 011-14721-00039
Reviewer: Craig J. Friederich
Date: August 3, 2001

PROCESS WELDING	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS * (lb pollutant / lb electrode) PM = PM10	Mn	Ni	Cr	EMISSIONS (lb/hr) PM = PM10	Mn	Ni	Cr	TOTAL HAPS (lb/hr)
Submerged Arc	0	0		0.036				0.000	0	0.000	0	0.000
Metal Inert Gas (MIG)(ER5154)	12	7		0.0241	0.00003		0.00001	2.024	0.002856	0.000	0.00084	0.004
Stick (E7018 electrode)	3	1.8		0.0211				0.114	0	0.000	0	0.000
Tungsten Inert Gas (TIG)(carbon steel)	3	2		0.0055				0.033	0	0.000	0	0.000
Oxyacetylene(carbon steel)	0	0		0.0055				0.000	0	0.000	0	0.000
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick) PM = PM10	Mn	Ni	Cr	EMISSIONS (lbs/hr) PM = PM10	Mn	Ni	Cr	TOTAL HAPS (lb/hr)
Oxyacetylene	0	0	0	0.1622	0.0005	0.0001	0.0003	0.000	0.000	0.000	0.000	0.000
Oxymethane	0	0	0	0.0815	0.0002		0.0002	0.000	0.000	0.000	0.000	0.000
Plasma	0	0	0					0.000	0.000	0.000	0.000	0.000
EMISSION TOTALS								PM = PM10	Mn	Ni	Cr	Total HAPs
Potential Emissions lbs/hr								2.17	0.00	0.00	0.00	0.00
Potential Emissions lbs/day								52.11	0.07	0.00	0.02	0.09
Potential Emissions tons/year								**9.51**	0.013	0.00	0.00	0.016

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)
Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.
Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994).
Welding and other flame cutting emission factors are from an internal training session document.
See AP-42, Chapter 12.19 for additional emission factors for welding.

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Date: August 3, 2001

Summary of Emissions

Uncontrolled Potential Emissions

Emission Unit	PM (tons/yr)	PM-10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	HAPS (tons/yr)
Three (3) Spray Booths	7.79	7.79	0.00	0.00	9.56	0.00	7.76
One (1) coal slag shot blaster	88.7	62.1	0.00	0.00	0	0.00	0.0
Welding	9.51	9.51	0.00	0.00	0	0.00	0.020
Radial Saw	2.37	2.37	0	0.0	0	0	0
Flame Cutting	2.040	2.040	0	0	0	0	0.0
Two (2) Nat Gas Fired make-up units	0.067	0.226	0.021	3.504	0.193	2.943	0.066
Total	**110**	**84.0**	**0.021**	**3.50**	**9.75**	**2.94**	**7.85**

Controlled Emissions

Emission Unit	PM (tons/yr)	PM-10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	HAPS (tons/yr)
Three (3) Spray Booths	0.779	0.779	0.000	0.000	9.56	0.000	7.76
One (1) coal slag shot blaster	1.77	1.24	0.00	0.00	0	0.00	0.0
Welding	9.51	9.51	0.00	0.00	0	0.00	0.020
Radial Saw	0.237	0.237	0	0.0	0	0	0
Flame Cutting	0.204	0.204	0	0	0	0	0.0
Two (2) Nat Gas Fired make-up units	0.067	0.226	0.021	3.504	0.193	2.943	0.066
Total	**12.6**	**12.2**	**0.021**	**3.50**	**9.75**	**2.94**	**7.85**

Appendix A: Emissions Calculations

Company Name: **LAU Industries, Inc.**
Address City IN Zip: **843 Indianapolis Avenue, Lebanon, Indiana 46052**
MSOP: **011-14721**
Plt ID: **011-00039**
Reviewer: **Craig J. Friederich**
Date: **August 3, 2001**

Daily Volume Weighted VOC Content
From Surface Coating Operations

Paints Used For a Representative Day	Volume of Coating Used Per Day (Gallons)	VOC Content per gallon less water (lbs/gal)	Weight of VOC Used This Day (lbs)
100481-02	0.00	4.190	0.000
100481-26	0.03	5.440	0.170
100481-5	0.50	5.190	2.595
100481-43	0.00	5.580	0.000
100481-35	0.00	6.490	0.000
100481-27	0.50	2.730	1.365
100481-28	0.00	2.280	0.000
100481-29	0.50	3.890	1.945
100481-30	0.00	2.280	0.000
Supreme 6409	1.75	3.300	5.775
Supreme 340 HP	0.46875	0.930	0.436
Supreme 1600-02	0.47	7.030	3.295
100481-22	0.00	6.750	0.000
Supreme S-976	0.016	7.380	0.115
100481-39	0.00	4.900	0.000
100481-40	0.00	3.470	0.000
Water Base Gray	6.00	2.810	16.860
Beard W.R. Primer	0.00	0.900	0.000
Beard W.R. Red	1.00	1.290	1.290
Sum	**11.23**		**33.8**

Daily Volume Weighted Average VOC Content (lbs/gal)	***3.01***

Methodology
Weight of VOC Used This Day (lbs) = Volume of each coating used (gal) x VOC Content per gallon less water of each coating (lbs/gal)
Daily Volume Weighted Average VOC Content (lbs/gal) = Sum of the Weights of the VOC used this day (Lbs) / Sum of Volume of coatings used this day (gal)